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TECH CENTER 1600/2900

1600

RAW SEQUENCE LISTING   DATE: 11/04/2003
PATENT APPLICATION: **US/09/905,558D**   TIME: 09:49:18

Input Set : **A:\1016.SEQLIST.TXT**
Output Set: **N:\CRF4\11032003\I905558D.raw**

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 4 <110> APPLICANT: Garnaat, Carl W.
 5         Roth, Bradley A.
 7 <120> TITLE OF INVENTION: ZmAxig1 Polynucleotides and Methods of
 8         Use
10 <130> FILE REFERENCE: 1016
12 <140> CURRENT APPLICATION NUMBER: US 09/905,558D
13 <141> CURRENT FILING DATE: 2001-07-13
15 <150> PRIOR APPLICATION NUMBER: US 60/217,942
16 <151> PRIOR FILING DATE: 2000-07-13
18 <160> NUMBER OF SEQ ID NOS: 26
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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23 <211> LENGTH: 1271
24 <212> TYPE: DNA
25 <213> ORGANISM: Zea mays
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29 <222> LOCATION: (170)...(763)
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33 acactagctg ctgtgggacg atcgaagtgg gtgtgtcagc tagctagctg cgccgtgacc 120
34 acgcacatga ccgcagtgcg cgcggggctg atcaaggaa agtgatcgg atg gag ctg 178
35                                                        Met Glu Leu
36                                                         1
38 gag ctc ggg ctc gcg ccg ccg aac ccg cat cag ccg ctg gct gcc gcc 226
39 Glu Leu Gly Leu Ala Pro Pro Asn Pro His Gln Pro Leu Ala Ala Ala
40      5                  10                  15
42 gcc gag ttc gtc ggt ctc ctc agc agc tcg gct ggc tcg tgc ggg aac 274
43 Ala Glu Phe Val Gly Leu Leu Ser Ser Ser Ala Gly Ser Cys Gly Asn
44  20                  25                  30                  35
46 aag agg gtt ctc ggc gac gcg ttc ggg gcc gcc aag gcg gcc acg ctt 322
47 Lys Arg Val Leu Gly Asp Ala Phe Gly Ala Ala Lys Ala Ala Thr Leu
48                  40                  45                  50
50 ccg ctc ttc gtc tgc gag gat ggc gac gga ggc ggc ggc gac cgc gac 370
51 Pro Leu Phe Val Cys Glu Asp Gly Asp Gly Gly Gly Gly Asp Arg Asp
52              55                  60                  65
54 cgc gac ggc gtc gtc gac cat gaa cag caa agc aac aat gta ccc agg 418
55 Arg Asp Gly Val Val Asp His Glu Gln Gln Ser Asn Asn Val Pro Arg
56          70                  75                  80
58 aag aag agg ctg gtg ggg tgg ccg ccg gtg aag tgc gcg cgt agg cgt 466
59 Lys Lys Arg Leu Val Gly Trp Pro Pro Val Lys Cys Ala Arg Arg Arg
60      85                  90                  95
62 agc tgc ggc ggc ggg tac gtg aag gtg aag ctg gaa ggg gtg ccc atc 514
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ENTERED

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63 Ser Cys Gly Gly Gly Tyr Val Lys Val Lys Leu Glu Gly Val Pro Ile
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66 ggg cgg aag gtg gac gtg tcc atc cac ggc tcg tac cag gag ctg ctc  562
67 Gly Arg Lys Val Asp Val Ser Ile His Gly Ser Tyr Gln Glu Leu Leu
68             120             125             130
70 cgc acg ctc gag agc atg ttc cct tcg ggt aac caa caa gat cat gca  610
71 Arg Thr Leu Glu Ser Met Phe Pro Ser Gly Asn Gln Gln Asp His Ala
72             135             140             145
74 gaa gac gag gtg gtg gtc tcg cac gag cgc cgc cgt cgc cat cct tat  658
75 Glu Asp Glu Val Val Val Ser His Glu Arg Arg Arg Arg His Pro Tyr
76         150             155             160
78 gta gtc acc tac gag gac ggc gaa ggg gac tgg ttg ctc gtc gga gat  706
79 Val Val Thr Tyr Glu Asp Gly Glu Gly Asp Trp Leu Leu Val Gly Asp
80         165             170             175
82 gat gtg ccg tgg gag gtc ttt gtc aag tca gtg aag cgg ctc aag ata  754
83 Asp Val Pro Trp Glu Val Phe Val Lys Ser Val Lys Arg Leu Lys Ile
84 180             185             190                 195
86 ctt gcg tag ccgacggtcg gcgcctcaga gacgtcgtgt ggtccgtctc        803
87 Leu Ala  *
90 accaggatcg gagcagtgta gtactcctgg gcgtcatctg cgtaataacg ttgtttctgt 863
91 cctgtgtgcc cgtagcagta cgtactgtcc tatagtaagc tagctttatg gggtgcttca 923
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101 <212> TYPE: PRT
102 <213> ORGANISM: Zea mays
104 <400> SEQUENCE: 2
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107 Ala Ala Ala Ala Glu Phe Val Gly Leu Leu Ser Ser Ser Ala Gly Ser
108             20              25              30
109 Cys Gly Asn Lys Arg Val Leu Gly Asp Ala Phe Gly Ala Ala Lys Ala
110         35              40              45
111 Ala Thr Leu Pro Leu Phe Val Cys Glu Asp Gly Asp Gly Gly Gly Gly
112     50              55              60
113 Asp Arg Asp Arg Asp Gly Val Val Asp His Glu Gln Gln Ser Asn Asn
114 65              70              75              80
115 Val Pro Arg Lys Lys Arg Leu Val Gly Trp Pro Pro Val Lys Cys Ala
116             85              90              95
117 Arg Arg Arg Ser Cys Gly Gly Gly Tyr Val Lys Val Lys Leu Glu Gly
118         100             105             110
119 Val Pro Ile Gly Arg Lys Val Asp Val Ser Ile His Gly Ser Tyr Gln
120     115             120             125
121 Glu Leu Leu Arg Thr Leu Glu Ser Met Phe Pro Ser Gly Asn Gln Gln
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122     130                 135              140
123 Asp His Ala Glu Asp Glu Val Val Val Ser His Glu Arg Arg Arg Arg
124 145                 150              155              160
125 His Pro Tyr Val Val Thr Tyr Glu Asp Gly Glu Gly Asp Trp Leu Leu
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127 Val Gly Asp Asp Val Pro Trp Glu Val Phe Val Lys Ser Val Lys Arg
128                 180              185              190
129 Leu Lys Ile Leu Ala
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134 <211> LENGTH: 1310
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136 <213> ORGANISM: Zea mays
138 <400> SEQUENCE: 3
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141 tgtacggcta catcgaacat atacacgaga tgtctcgtgt gaatagagtc actaatgcct 180
142 taagcatcgg ttactccgta gggtacattc tgttcttctt atttgtgcat attttttattg 240
143 ttgtttactg attatacgag tagttataca tacatgcaca tacatatcat cacatatatc 300
144 acaatatttt tctaaattaa attaaaacta aaaatgacta aatttctaac accaacgaca 360
145 ttgtaatgtt ttctccaaca actttaccta ttctacattg ttctatttcg aatttcactc 420
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147 ggctacaaca taagacaata tagtcgtttg aagattgaac ctatatatcg gtacggttaa 540
148 tccgtctatg tacgtgggca tgacgaacac ccgtgataac gaaggattaa cgtgcacaat 600
149 cataaatcca aagtaggagc ggtgcatgat gagaatcgct ctcagtactc gacataatga 660
150 accttacgag gtacaacagg caggcaggca gggaccaggg gccgccttta tttcaggctc 720
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152 ccgcgctgga tcggcaaatc aaacgaggtg gtgccccgtg cccactctcc acgtccacgg 840
153 caccatccct ctgcagccgc tcaccagcca tgccgtgtcg cggaacggca caaccacccc 900
154 caacccactc acgaaacccc gtcccggccg tgcccgtgtc ggtccgcgct cggcaacgag 960
155 gcggcccgcg ctgctgagtc ccctggacac ccgacaccct gtcggccctt tgtttattca 1020
156 tcccgaaatc tcatctgccc ccacggccga ctgcgctgcg ccgcccggat atatataccc 1080
157 atcgttatcg atcgatcgat cgcgtcactc acgggtagct catggtcgag cgtagcatgc 1140
158 aggaacttat ttgccgtgcg ctcccaggtc tccgctcgcg tgccttccag tctgtctcac 1200
159 actagctgct gtgggacgat cgaagtgggt gtgtcagcta gctagctgcg ccgtgaccac 1260
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167 <400> SEQUENCE: 4
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171 taagcatcgg ttactccgta gggtacattc tgttcttctt atttgtgcat attttttattg 240
172 ttgtttactg attatacgag tagttataca tacatgcaca tacatatcat cacatatatc 300
173 acaatatttt tctaaattaa attaaaacta aaaatgacta aatttctaac accaacgaca 360
174 ttgtaatgtt ttctccaaca actttaccta ttctacattg ttctatttcg aatttcactc 420
175 tataaacaac atagtctaca atggaaaaca gtgctttgta cgactatata cgcgatgtgt 480
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Output Set: **N:\CRF4\11032003\I905558D.raw**

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177 tccgtctatg tacgtgggca tgacgaacac ccgtgataac gaaggattaa cgtgcacaat 600
178 cataaatcca aagtaggagc ggtgcatgat gagaatcgct ctcagtactc gacataatga 660
179 accttacgag gtacaacagg caggcaggca gggaccaggg gccgccttta tttcaggctc 720
180 gctggcccca cgggcgtgct gcgtgcacga agggcactac cccaacctct caccgaaaaa 780
181 ccgcgctgga tcggcaaatc aaacgaggtg gtgccccgtg cccactctcc acgtccacgg 840
182 caccatccct ctgcagccgc tcaccagcca tgccgtgtcg cggaacggca caaccacccc 900
183 caacccactc acgaaacccc gtcccggccg tgcccgtgtc ggtccgcgct cggcaacgag 960
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188 actagctgct gtgggacgat cgaagtgggt gtgtcagcta gctagctgcg ccgtgaccac 1260
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193 <212> TYPE: DNA
194 <213> ORGANISM: Zea mays
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204 tataaacaac atagtctaca atggaaaaca gtgctttgta cgactatata cgcgatgtgt 480
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209 gctggcccca cgggcgtgct gcgtgcacga agggcactac cccaacctct caccgaaaaa 780
210 ccgcgctgga tcggcaaatc aaacgaggtg gtgccccgtg cccactctcc acgtccacgg 840
211 caccatccct ctgcagccgc tcaccagcca tgccgtgtcg cggaacggca caaccacccc 900
212 caacccactc acgaaacccc gtcccggccg tgcccgtgtc ggtccgcgct cggcaacgag 960
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214 tcccgaaatc tcatctgccc ccacggccga ctgcgctgcg ccgcccggat atatataccc 1080
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227 tcccttcggg taaccaacaa ggtgcgtacg ttcccgggcc gcggcgagcc ggccggcgac 1860
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236 ctgggcgtca tctgcgtaat aacgttgttt ctgtcctgtg tgcccgtagc agtacgtact 2400
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246 gtaaatgtca ttataggata taaatgtagt gtttcctagt tttaccctag ctttcgcatg 3000
247 catagtggga aagtgtacta actctcctca tgcagaaaga ggtgtggtat acctaacaaa 3060
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262 <213> ORGANISM: Zea mays
264 <220> FEATURE:
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271 <212> TYPE: DNA
272 <213> ORGANISM: Zea mays
274 <400> SEQUENCE: 8
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278 <211> LENGTH: 29
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280 <213> ORGANISM: Zea mays
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285 <210> SEQ ID NO: 10
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 11/04/2003
PATENT APPLICATION: **US/09/905,558D**   TIME: 09:49:19

Input Set : **A:\1016.SEQLIST.TXT**
Output Set: **N:\CRF4\11032003\I905558D.raw**

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:21; Xaa Pos. 5,6,18,19,22,33,45,47,51,54,55,56,57,61,62,63,65